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NEW TURRITID MOLLUSKS FROM FLORIDA

By Paul Bartsch and Harald A. Rehder

A recent sending of a lot of turritid mollusks by Dr. Louise M. Perry, of Sanibel Island, Fla., has made it necessary to put on record some new superspecific groups, as well as species, which are here defined.

CERODRILLIA, new genus

Small, elongate-turreted shells having a waxy appearance with the nuclear whorls smooth, passing directly into the postnuclear sculpture without intermediate stages. The whorls are provided with strong axial ribs. The spiral sculpture varies as indicated in the two subgenera described below. Aperture with a short anterior channel; outer lip with a deep sinus immediately below the summit and a stromboid notch near the anterior margin.

Type: *Cerodrillia clappi*, new species.

We are recognizing two subgenera of this genus, which the following key will help to differentiate:

KEY TO THE SUBGENERA OF CERODRILLIA

Shell with spiral sculpture on base and columella ..... **Cerodrillia**
Shell without spiral sculpture on base and columella ..... **Lissodrillia**

Cerodrillia, new subgenus

Small shells of elongate-turreted outline. Nuclear whorls smooth, passing directly into the postnuclear sculpture without intermediate stages. Postnuclear whorls appressed at the summit, marked by prominent, retractively slanting, somewhat sigmoid axial ribs, which

extend from the summit to the columella, where they evanesce. The entire surface of the shell is marked by scarcely perceptible incremental lines and equally faint spiral striations; the latter change into feeble threads on the base and columella, being stronger on the latter. Aperture irregularly oval, decidedly channeled anteriorly; outer lip with a deep sinus immediately below the summit, separated from this only by the thickened peristome. Anterior to the sinus the shell is protracted into a clawlike element. There is a feeble stromboid notch at the anterior end of the outer lip; the inner lip is reflected over the columella as a heavy callus, which extends in varying degrees over the parietal wall.

Type: *Cerodrillia* (*Cerodrillia*) *clappi*, new species.

CERODRILLIA (CERODRILLIA) PERRYAE, new species

PLATE 17, FIGURE 1

Shell elongate-turreted, flesh-colored, with a broad golden-brown band, which extends from the middle of the turns to a little beyond the periphery. Nuclear whorls 2, strongly rounded, smooth. Postnuclear whorls moderately rounded, marked by strong, distantly spaced, broad axial ribs, which on the early whorls attain their greatest development at the periphery; in the later whorls the hump is a little anterior to the middle. Of these ribs, nine occur on the first, second, and third, eight on the fourth and fifth, and two on the last quarter of a turn. The spaces separating these ribs are broad and shallow and marked by microscopic incremental lines and equally faint spiral striations. Periphery well rounded, the axial ribs evanescing at the periphery. Base moderately long, marked by feeble spiral threads which increase in length from the periphery anteriorly and develop into five equal and almost equally spaced cords on the columella. Outer lip of the type, which is not quite mature, since it has not yet developed the deep notch, but merely a shallow sinus anterior to the summit, protracted anteriorly to the sinus and backed by a heavy varix. Anterior channel profound; inner lip reflected over the columella as a callus which extends up on the parietal wall.

The type, U.S.N.M. No. 508644, was collected by Dr. Perry at Sanibel Island. It has 8.2 whorls and measures: Length, 12.9 mm.; greater diameter, 5.3 mm.

Cerodrillia (*Cerodrillia*) *thea* (Dall) differs from this species in being of a uniform chocolate-brown color and in having the axial ribs shorter and broader, the knobs more pronounced.

CERODRILLIA (CERODRILLIA) CLAPPI, new species

PLATE 17, FIGURE 4

Shell small, elongate-turreted, yellowish white, with a faint pale-brown band a little anterior to the broadest expansion of the axial

ribs. There is another broader band at the periphery of the last whorl, which on the early turn is covered. Nuclear whorls 2, small, strongly rounded, smooth. Postnuclear whorls almost flattened on the early turns, appressed at the summit, but more rounded on the later, marked by slightly retractively slanting, broad axial ribs. On the later whorls these have a decided hump a little anterior to the middle. Of these ribs 10 occur on the first, 11 on the second and third, 10 on the fourth, 8 on the fifth, 9 on the sixth, and 6 on the last half. The spaces separating the axial ribs are broad and shallow and marked by microscopic incremental lines and equally weak spiral striations. Base rather long, marked by the continuation of the incremental lines and feeble spiral threads, which gain in strength anteriorly and develop into 5 weak cords on the columella. Aperture irregularly oval, decidedly channeled anteriorly and with a profound sinus immediately below the summit on the outer lip, which is bordered by a thick callus extending over the parietal wall as a hook. Anterior to the sinus the outer lip is protracted into a clawlike element bearing a feeble stromboid notch at its anterior margin. The inner lip is reflected over the columella as a heavy callus, which becomes attenuated on the parietal wall. Behind the outer lip is a heavy varix.

The type, U.S.N.M. No. 493408, is one of a series of specimens dredged by John B. Henderson, Jr., in 4 fathoms in Hawk Channel, Fla. It has 8.5 whorls and measures: Length, 11.5 mm.; greater diameter, 4.2 mm.

We take pleasure in naming this species for Dr. George H. Clapp, who accompanied Mr. Henderson on his collecting expedition.

We also have specimens from No Name Key collected by Hemphill, and another lot from Hawk Channel taken in 3 to 20 fathoms.

This species is smaller and slenderer than either *Cerodrillia* (*Cerodrillia*) *thea* or *C.* (*C.*) *perryae*, differing also in coloration.

Lissodrillia, new subgenus

Shell very small, elongate-turreted. Nuclear whorls 2, well rounded, smooth, passing directly into the postnuclear sculpture without any intermediate stage. The postnuclear whorls are appressed at the summit and marked by strong axial ribs. The spiral sculpture on the spire and base absent, also on the columella. Aperture decidedly channeled anteriorly with a sinus immediately below the summit, which is rather deep and thickened by the reflected peristome. Anterior to the notch the outer lip is produced as a clawlike element and bears a feeble stromboid notch anteriorly. Inner lip reflected over and appressed to the columella, extending as a callus on the parietal wall.

Type: *Cerodrillia* (*Lissodrillia*) *schroederi*, new species.

This subgenus recalls *Cerodrillia*, but it is separated from that by lacking the spiral sculpture on the spire, base, and columella.

CERODRILLIA (LISSODRILLIA) SCHROEDERI, new species

PLATE 17, FIGURE 8

Shell very small, elongate-turreted, milk-white. Nuclear whorls 2, strongly rounded, smooth. Postnuclear whorls appressed at the summit, slightly rounded, marked by very slightly retractively curved, broad, rounded axial ribs, which are as broad as the spaces that separate them. Of these ribs 10 occur on the first, 11 on the second, 12 on the third, and on the last two-thirds of a turn they become quite obsolete. These ribs are flattened on the first turn but become slightly humped below the middle on the remaining turns. They pass over the periphery and evanesce at the insertion of the columella. The ribs and intercostal spaces are marked by scarcely perceptible lines of growth. Base moderately long, marked by the feeble continuation of the axial ribs and inconspicuous spiral striations. Columella without spiral cords. Aperture elongate-oval, decidedly channeled anteriorly; outer lip with a profound sinus immediately below the summit and a weak stromboid notch anteriorly; inner lip covered with a heavy callus which extends over the parietal wall.

The type, U.S.N.M. No. 530585, has 6.2 whorls and measures: Length, 4.8 mm.; greater diameter, 1.9 mm. It was dredged by the United States Bureau of Fisheries steamer *Albatross* at station 2410 in 28 fathoms off Charlotte Harbor, Fla., on a bottom of fine white sand and broken shells.

The species is named for Lt. Seaton Schroeder, navigator on the *Albatross* at the time this dredging was made.

RUBELLATOMA, new genus

Shell, small, elongate-turreted, nuclear whorls forming an acute apex, consisting of about 2 strongly rounded, smooth whorls, which are succeeded by a short stretch of moderately strong, retractively curved, slender, axial riblets, which in turn give way to heavy postnuclear sculpture. The postnuclear whorls are angulated at or a little anterior to the middle, and they are appressed at the summit and marked by very strong sigmoid axial ribs, which taper toward the summit and evanesce on the columella. The broad intercostal spaces and the axial ribs are marked by incremental lines and incised spiral lines, the combination producing a somewhat fenestrated pattern. Base rather long, bearing the same sculpture as the spire. Columella short, stubby, marked by irregular incremental lines.

Aperture elongate-ovate, decidedly channeled anteriorly and with a shallow sinus at the posterior angle; outer lip acute; inner lip reflected over the columella as a callus, extending on the parietal wall.

Type: *Rubellatoma rubella* (Kurtz and Stimpson) (=*Mangelia rubella* Kurtz and Stimpson).

RUBELLATOMA DIOMEDEA, new species

PLATE 17, FIGURE 3

Shell elongate-turreted. Nuclear whorls bright chestnut-brown, the rest of the whorls with a broad brown band covering the posterior half of the whorls. There is a second broad band a little less wide immediately anterior to the periphery followed by a pale zone of almost equal width, while the tip is chestnut-brown. The interior of the aperture shows the exterior coloration. The first 1.5 nuclear whorls are smooth, the succeeding half turn is marked by slender, retractively curved, axial riblets followed by the postnuclear sculpture. Postnuclear whorls appressed at the summit, with a decided angle, the crest of which occupies the anterior fourth between the summit and suture. The whorls are marked by strong sinuous axial ribs, which attain their highest elevation at the angulation and taper gently toward the summit and columella where they evanesce. Of these ribs, 12 occur on the first postnuclear turn, 9 on the second, third, and fourth, 10 on the fifth, and 7 on the last seven-tenths of a turn. The axial ribs are not quite so wide as the spaces that separate them. The entire surface of the shell is marked by numerous incremental lines and equally strong spiral striations, the combination of which gives to the surface a feebly fenestrated pattern. Base rather long, marked by the same sculpture as that which characterizes the spire. Columella short, stubby, marked by incremental lines and weak spiral threads. Aperture elongate-ovate, decidedly channeled anteriorly, with the posterior sinus shallow immediately below the summit. Outer lip somewhat thickened behind the edge, sharp at the edge, slightly protracted anteriorly at the notch and marked like the spire; the inner lip is appressed to the columella as a callus extending up on the parietal wall.

The type, U.S.N.M. No. 508645, was collected by Dr. Perry at Sanibel Island, Fla. It has 7.6 whorls and measures: Length, 9.7 mm.; greater diameter, 4.0 mm. An additional specimen is in Dr. Perry's collection.

Three young specimens, U.S.N.M. No. 323723, were collected by the U. S. Bureau of Fisheries steamer *Albatross* at station 2389 in 27 fathoms, on gray sand and shell bottom off Mobile Bay, Ala.

This species differs from *Rubellatoma rubella* (Kurtz and Stimpson) in having the nuclear whorls chestnut-brown instead of

horn-color and in having the angle of the whorls much more anterior; that is, occupying not the middle but the anterior fourth of the space between the summit and suture.

STELLATOMA, new genus

Shell small, elongate-ovate. Nuclear whorls with the first stage smooth followed by a small area marked by slender, rather closely spaced axial ribs, which merges into the postnuclear sculpture. The postnuclear whorls have a broad sloping shoulder below the appressed summit that extends over about one-third of the whorls, which is bounded anteriorly by an angle; the anterior portion of the whorls is greatly rounded. The whorls are marked by axial ribs, which taper toward the summit and evanesce at the insertion of the columella. The spiral sculpture on the early whorls consists of rather strong cords, which weaken on the latter in some of the species. Base marked like the spire. Columella short and stubby, marked by spiral threads. Aperture elongate-ovate, decidedly channeled anteriorly and at the posterior angle; outer lip much thickened, marked by transverse striations and bearing a strong denticle at the anterior termination of the posterior sinus; the inner lip also bears a broad internal fold at the insertion of the columella.

Type: *Stellatoma stellata* (Stearns) (=*Mangelia stellata* Stearns).

Genus PYRGOCYTHARA Woodring

PYRGOCYTHARA HEMPHILLI, new species

PLATE 17, FIGURE 2

Shell small, elongate-ovate, varying in ground color from chestnut-brown to wax yellow, usually with a pale zone at the angle of the shoulder. The outer lip and base of the columella may be orange or dark purplish orange. Nuclear whorls slender, the first 1.5 smooth, succeeded by about two-tenths of a turn that shows slender, retractively curved, axial riblets, which in turn are followed by the postnuclear sculpture. Postnuclear whorls moderately well rounded, appressed at the summit. The postnuclear whorls are marked by very strong, sinuous axial ribs, which taper at the summit and evanesce on the columella. Of these ribs 10 occur on the first and second, 9 on the third and fourth, 10 on the fifth, and 9 on the last. In addition to the axial ribs, the entire surface of the shell is marked by microscopic incremental lines. The spiral sculpture consists of a low, rounded, obsolete keel, which occupies the middle of the turns on the first four whorls but falls a little posterior to this on the rest of the shell. This produces a decided shoulder on the whorls. Anterior to the shoulder

three ill-defined spiral cords are present on all but the last two whorls, on which there are four, the penultimate having four, while on the last turn intercalated cords appear between these. Base rather long, marked by the continuation of the axial ribs, which become slightly enfeebled anteriorly and the same type of sculpture as that characterizing the shell anterior to the angle. Columella stout, about as long as the base, marked by obliquely slanting, closely approximated, spiral cords, which vary in size and spacing. Aperture narrowly auriculate, decidedly channeled anteriorly and posteriorly. The anterior channel is deep and well rounded and is situated immediately below the summit. The lip posterior to the sinus is somewhat thickened. Anterior to the sinus the lip is much thickened but tapers to an edge and is slightly protracted. The inside of the outer lip immediately anterior to the channel bears a decided denticle. The inner lip is appressed to the columella as a small callus and thickened on the parietal wall.

The type, U.S.N.M. No. 86898a, was collected in low water in Sarasota Bay, Fla., by Henry Hemphill. It has 7.5 whorls and measures: Length, 8.9 mm.; greater diameter, 3.3 mm.

Hemphill likewise collected it on low-water mud flats at Boca Ceiga.

Genus BELLASPIRA Conrad

PLATE 17, FIGURE 6

1868. *Bellaspira* CONRAD, American Journ. Conch., vol. 3, p. 261.

This genus appears to be very poorly understood. The senior author has for that reason made a careful examination of Conrad's type, *Mangelia virginiana* Conrad, which came from the Miocene of Yorktown, Va. This bears Academy of Natural Sciences of Philadelphia No. 1610.

It may be redescribed as having the shell elongate-ovate, the nuclear whorls decollated; the postnuclear whorls strongly rounded with a decided angle at the middle of the turns where the first spiral cord is located. The whorls are marked by strong axial ribs, of which 10 are present on the first, 12 on the second and the last whorl. The intercostal spaces are about one and one-half times as wide as the axial ribs. On the last turn in addition to the spiral cord mentioned above, two more are present anterior to this between it and the periphery. Base moderately long, marked by the continuation of the axial ribs, which evanesce on the middle of the columella. The specimen appears too worn to yield evidence as to the presence of spiral threads on the base. Columella bears 7 spiral threads. Aperture moderately large, ovate, decidedly channeled anteriorly with a posterior sinus at the summit of the outer lip, limited by a thickening at the outer edge.

The outer lip also is reenforced by a varixlike thickening behind the peristome; the inner lip is appressed to the columella as a callus.

The type has 4.5 whorls, which measure: Length, 4.5 mm.; greater diameter, 2.3 mm.

Our figure is taken from the type.

Genus KURTZIELLA Dall

KURTZIELLA PERRYAE, new species

PLATE 17, FIGURES, 7, 9

Shell minute, elongate-turreted, milk-white with a creamy tinge. The first nuclear turn is well rounded, smooth. This is followed by a turn marked by closely spaced axial riblets and 4 spiral cords, the latter rendering the axial riblets roundly nodulose at their junction. The third cord is a little anterior to the middle and forms an angle. Postnuclear whorls appressed at the summit, marked by very strong axial ribs, which become enfeebled toward the summit and extend anteriorly on the last whorl to the columella. These ribs are more strongly pronounced on the middle of the turns, which they angulate. Of these ribs, 12 occur on the first, 11 on the second, 10 on the third, fourth, and fifth, and 5 on the last half of the last turn. The ribs are only about half as wide as the spaces that separate them. In addition to these strong ribs slender, very regular, closely spaced axial threads are present, which are crossed by spiral threads of equal strength, the junctions of which produce slender rounded nodules, that give to the entire surface of the shell a decidedly granulose effect. This type of sculpture also characterizes the base where the spirals are a little more distantly spaced and the nodulation less pronounced. Columella short and stubby, marked by rather rough oblique lines. Aperture oval, strongly channeled anteriorly with a deep sinus immediately below the summit, whose outer edge is somewhat thickened and reflected. Anterior to the sinus the outer lip is produced into a clawlike element. Inner lip appressed to the columella as a callus extending over the parietal wall.

The type, U.S.N.M. No. 508646, was collected by Dr. Perry at Sanibel Island, Fla. It has 7.5 whorls and measures: Length, 6.5 mm.; greater diameter, 2.3 mm.

This species, while in general type of sculpture and nuclear characters resembling *Kurtziella limonitella* Dall, differs from it in its much slenderer form, much more distantly spaced and less numerous and less strongly developed axial ribs, and much finer spiral sculpture. It also lacks the dark-colored tip of the columella and nuclear whorls.

Genus CRASSISPIRA Swainson

CRASSISPIRELLA, new subgenus

Shell large. The first nuclear whorl well rounded, smooth, succeeded by a fraction of a turn in which faint, closely spaced, retractively curved axial riblets are present, which in turn merges into the postnuclear sculpture. Postnuclear whorls well rounded, the anterior third marked by strongly elevated spiral threads; the posterior two-thirds by strong axial ribs and spiral threads. The latter pass in equal strength over both ribs and intercostal spaces. Base marked by the continuation of the axial ribs, which evanesce on reaching the pillar, and spiral threads. The pillar is rather short, stout, with an obsolete fasciole a little posterior to the tip, marked by spiral threads a little wider than those on the base. In addition to this, the entire surface of the whorls is marked by lines of growth and spiral striations. The sinus falls in the concave area between the summit and the posterior termination of the axial ribs and is moderately broad, deep, and reflected. Anterior to the sinus the outer lip is protracted into a clawlike element that terminates anteriorly in a notch a little posterior to the tip. Inner lip slightly sigmoid, reflected over and appressed to the base. Parietal wall covered by a moderately thick callus, which is not developed into a conspicuous hump at the parietal wall. A little distance behind the outer lip there is a weakly developed varix. Operculum unknown.

Type: *Crassispira* (*Crassispirella*) *rugitecta* (Dall) (=*Turris rugitecta* Dall). Lower California.

CRASSISPIRA (CRASSISPIRELLA) SANIBELENSIS, new species

PLATE 17, FIGURES 11, 12

Shell elongate-turreted, brown, with the intercostal spaces flesh-colored, the edge of the aperture corresponding to the dark color outside, but the interior is livid. First nuclear whorl smooth, followed by a turn with rather closely spaced axial riblets and an indication of spiral threads with the possibility of nodules at their junction. Postnuclear whorls moderately rounded, appressed at the summit, marked by broad, low axial ribs, which terminate at the anterior extremity of the broad siphonal channel. These ribs are broader than the spaces that separate them. In addition there are numerous threadlike incremental lines. The spiral sculpture consists of heavy cords of which the first one is on the shoulder anterior to the summit. Two strong cords appear anterior to the sutural sinus on all but the last two of the remaining turns; on these, three cords are present that render the broad axial ribs nodulose, the nodules having their long axis parallel with the spiral sculpture. In addition to the

coarser spiral sculpture, microscopic spiral lines are present on the entire surface. Base moderately long with a narrow umbilical chink at the tip, marked by four spiral cords, which slightly decrease in size anteriorly. Columella stout, stubby, with six heavy cords and several slender threads anterior to these. Aperture oval, decidedly channeled anteriorly with a deep sinus immediately anterior to the cord at the summit. Anterior to the sinus the outer lip is protracted into a clawlike element that bears a series of nodules corresponding to the cords on the outside; inner lip heavy and reflected over the columella. A callus extends over the parietal wall joining the heavy cord at the summit.

The type, U.S.N.M. No. 508647, as well as a young specimen, U.S.N.M. No. 508648, from which the tip was described, was collected by Dr. Perry at Sanibel Island, Fla. The type has 6.5 whorls remaining and measures: Length, 25.8 mm.; greater diameter, 9.9 mm.

The species seems to range down to Key West and into the Bahamas. *Melatoma hadromeres* Melvill from Jamaica appears to be a congener.

CRASSISPIRA (CRASSISPIRELLA) TAMPAENSIS, new species

PLATE 17, FIGURES 5, 13

Shell elongate-turreted, chestnut-brown; interior of the aperture livid. The first nuclear whorl is well rounded, smooth, succeeded by a fraction of a turn in which faint, closely spaced, retractively curved, axial riblets are present, which in turn merges into the postnuclear sculpture. Postnuclear whorls rendered somewhat shouldered at the summit by a strong spiral cord, which is followed anteriorly by a broad siphonal channel, anterior to which the whorls are marked by strong, somewhat sigmoid, axial ribs extending to the insertion of the columella. These ribs are about half as wide as the spaces that separate them; of these, 19 are present on the last turn and 17 on the antipenultimate, the early whorls being eroded in the type. In addition to the axial ribs, the whorls are marked by fine incremental lines, which are decidedly retractively curved in the subsutural channel. The spiral sculpture consists of deeply incised lines, which leave the spaces between them as slightly elevated, flattened ribs; of these, 3 cross the axial ribs posterior to the suture. The base, which is moderately long, is similarly marked, and here the incised lines are broader and separate 4 well-differentiated cords, which render the axial ribs nodulose at their junction. Columella short and stout, marked by 9 spiral cords, which decrease in width from the insertion of the columella anteriorly. Aperture elongate pear-shaped; outer lip with a profound sinus a little below the summit; anterior to the sinus it is protracted into a clawlike element with a

mere indication of stromboid notching anteriorly; the inner lip extends over the columella as a broad callus leaving a narrow umbilical chink at its anterior end. A callus extends over the parietal wall.

The type, U.S.N.M. No. 493409, was collected by C. W. Johnson at Tampa Bay, Fla. It has 10 whorls remaining and measures: Length, 22.0 mm.; greater diameter, 7.3 mm.

U.S.N.M. No. 412154 contains 4 young specimens from the same source, the tip of one of which has served for our nuclear description.

MONILISPIRA, new genus

Shell moderately large. The first 2 nuclear whorls are smooth, followed by a turn in which there are moderately strong, retractively curved axial riblets, which are about as wide as the spaces that separate them; following this is the postnuclear sculpture. Postnuclear whorls with a strong, broad, somewhat wavy, nodulose spiral cord at the summit and a series of very large conic nodules immediately above the periphery. The base is marked by 3 nodulose spiral threads, while the posterior portion of the columella bears 2. In addition, the entire surface of the whorls from the summit to the tip of the columella is marked by lines of growth and fine spiral striations. The sinus is moderately deep and broad and falls between the spiral cord at the summit and the nodules anterior to it. The outer lip is protracted anterior to the sinus; inner lip is reflected and appressed to the columella; parietal wall covered with a moderately thick callus, which is at best but slightly thickened at the posterior angle of the aperture. Operculum claw-shaped, with apical nucleus and concentric lines of growth.

Type: *Monilispira monilifera* (Carpenter) (=*Drillia monilifera* Carpenter). Gulf of California.

This group is known from the Gulf of California as well as Florida and the West Indies.

MONILISPIRA MONILIS, new species

PLATE 17, FIGURE 10

Shell elongate-turreted, chestnut-brown except for the tubercles, which are pale yellow, the interior of the aperture reflecting the coloration of the outside. The first 2 nuclear whorls are smooth, followed by a turn in which there are moderately strong, retractively curved axial riblets, which are about as wide as the spaces that separate them; following this is the postnuclear sculpture. Postnuclear whorls with a spiral cord immediately below the summit and a broad tuberculated cord immediately above the suture. The latter is marked by a secondary cord, which coincides with the crest of the

tubercles and a little heavier one immediately anterior to the major portion of the tubercles. This on the early turn falls into the suture, but on the last whorl is slightly posterior to it. Of the tubercles 12 are present on the first of the postnuclear turns, 10 on the second, third, and fourth, 11 on the fifth and sixth, and 6 on the last half of the last turn. In addition to the above sculpture, the entire spire and base are marked by numerous, closely spaced, spiral threads, which in combination with the slightly weaker incremental lines lend to the surface, under high magnification, a somewhat fenestrated aspect. Base moderately long, marked by 3 tuberculated spiral cords. Columella stubby, marked by 9 spiral cords, which range from as strong as the last basal to mere threads at the tip of the columella. Aperture irregularly pyriform, decidedly channeled anteriorly; outer lip with a very deep sinus a little below the summit whose edge is reflected. Posterior to the sinus there is a heavy hump anterior to the sinus and the outer lip is protracted into a clawlike element, which is rendered sinuous by the external sculpture; inner lip reflected over the columella as a very heavy callus, which extends up on the parietal wall.

The type, U.S.N.M. No. 508649, was collected by H. B. Olds at Waveland, Dade County, Fla. It has 10 whorls and measures: Length, 12.5 mm.; greater diameter, 5.0 mm.

We have seen specimens also from Cape Sable, Cape Romano, Marco, Punta Rasa, and Sanibel Island.

EXPLANATION OF PLATE 17

1, *Cerodrillia* (*Cerodrillia*) *perryae*, new genus and species; 2, *Pyrgocythara hemphilli*, new species; 3, *Rubellatoma diomedea*, new genus and species; 4, *Cerodrillia* (*Cerodrillia*) *clappi*, new species; 5, *Crassispira* (*Crassispirella*) *tampaensis*, new species, tip; 6, *Bellaspira virginiana* (Conrad); 7; *Kurtziella perryae*, new species, detail of sculpture; 8, *Cerodrillia* (*Lissodrillia*) *schroederi*, new species; 9, *Kurtziella perryae;* 10, *Monilispira monilis*, new genus and species; 11, *Crassispira* (*Crassispirella*) *sanibelensis*, new species; 12 *C.* (*C.*) *sanibelensis*, tip; 13, *C.* (*C*) *tampaensis*. × 5.

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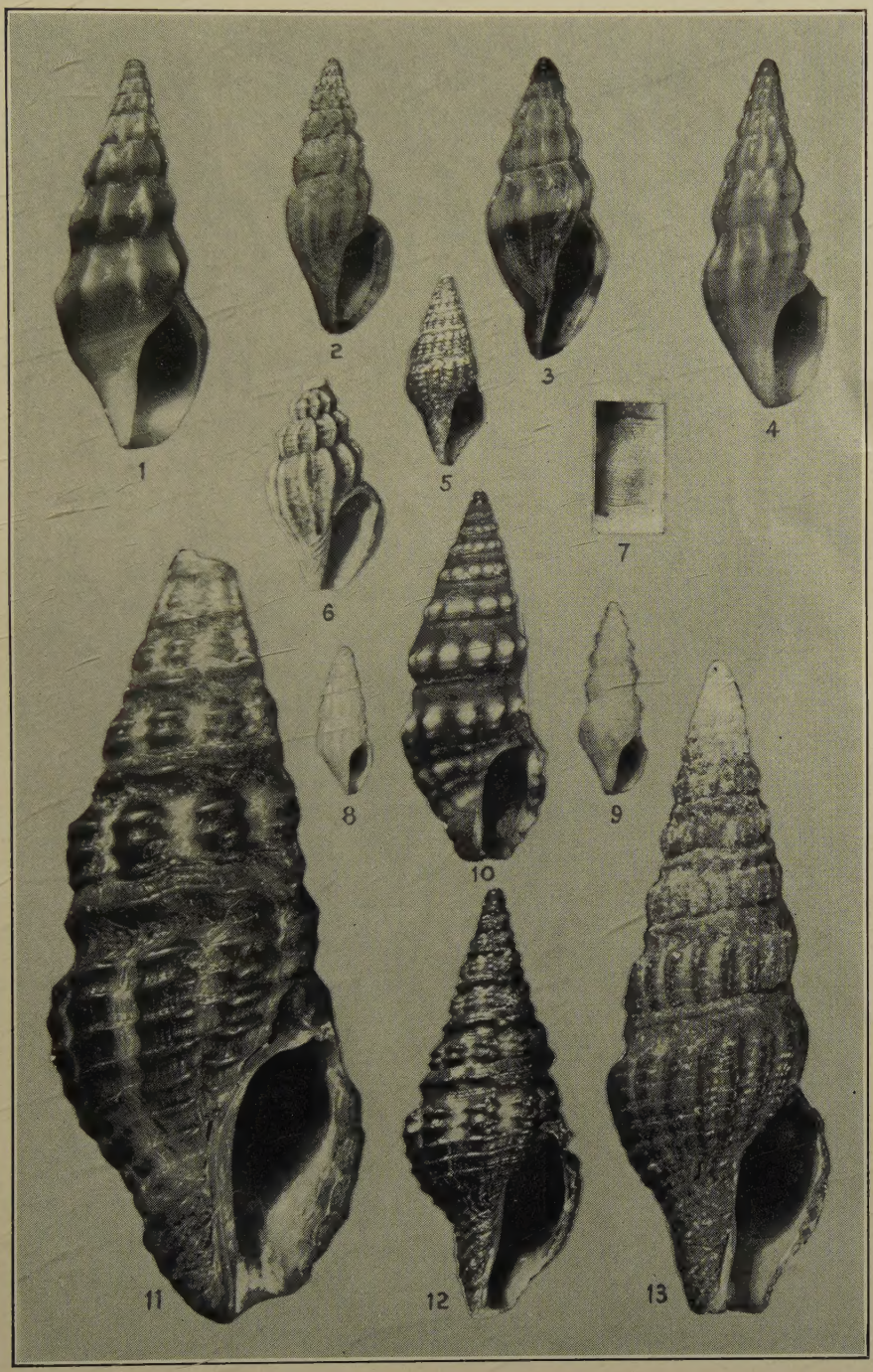

TURRITID MOLLUSKS FROM FLORIDA.

FOR EXPLANATION SEE OPPOSITE PAGE.